



1774

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Faqir JAIN and Fotios PARADIMITRAKOPOLIS

Serial No. 09/547,415

Art unit: 1774

Filed: April 11, 2000

Examiner: GARRETT, Dawn

For: FULL COLOR DISPLAY STRUCTURE USING CNC THIN FILM

AMENDEMNT (marked-up version)

Commissioner of Patents

Washington, D.C. 20231

Sir:

In response to USPTO communication dated March 14, 2003, please amend the application as follows:

## IN THE CLAIMS:

Please rewrite claim 1 as follows:

--1. (twice amended) A *p-n* junction electroluminescent (EL) device, comprising successive multiple layers of:

a semiconductor-on-insulator substrate;

a *p*-[doped] type Si layer grown on the said substrate, part of the layer being oxidized to isolate the electrodes at the bottom of said device;

a thin layer of Si [relative to] thinner than the substrate which allows further epitaxial growth;

a *p*-[doped] type [wide energy gap relative to the cladded nanocrystals (CNCs)] semiconductor layer grown epitaxially;

a layer comprising pseudomorphic cladded quantum dots nanocrystals (CNCs) with narrower energy gap semiconductor layer than said p-type layer deposited on the said *p*-type layer for [lattice-matched] lattice-matching and electroluminescence;

a semiconductor layer [relative to] thinner than the substrate, having n-type conductivity [with wide energy gap relative to] and wider energy gap than the cladded quantum dot nanocrystals (CNCs), grown on the CNC layer; and

a metal layer forming a plurality of top contact electrodes deposited on the *n*-[doped] type wide energy gap semiconductor layer having patterned regions to confine current conduction in [desired] pixels of said EL device.--

Please rewrite claims 38-44 as follows:

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